SOIL CONSERVATION LITERATURE
SELECTED CURRENT REFERENCES

V.5 January/February, 1941 No.1

Land is not a commodity. Land is not the product of man, nor with all the ingenuity of classical economists can he ever mix his labor with anything that is not land and thereby fashion land. Land is the gift of Nature entrusted to man's keeping upon which he may project his energies of mind and muscle and thereby support life and fashion a civilization. – Wilhelm Anderson in Land Policy Review.

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Mildred Benton
Librarian

PERIODICAL ARTICLES

Airplanes and Erosion

Anderson,H.P. Farmers in the sky. Farm Jour.64(12):18-19,illus. Dec.1940. 6 F2212

"The era of the airplane as a farm tool has begun."Among its uses are spotting erosion blemishes and sowing ranges."By using the 'flying drill'[western sheepman with an eye to reclaiming overgrazed lands]expect to sow swaths a hundred feet wide at the rate of better than a mile a minute."

Andrews,G.S. Notes on interpretation of vertical air photographs. Forestry Chron.16(3):[202]-215,illus. Sept.1940. 99.8 F7623

"Additional references,"pp.214-215.

"The air photograph is a means to an end.That end is a qualitative and quantitative knowledge of the features of the earth's surface.

"A number of pictorial elements - tones,texture,shadows,and outlines - taken in conjunction,build up a comprehensive picture of conditions on the ground.

"The influences of central perspective and scale are discussed.

"Suggestions are given as to the application of air photographs and a description of the more prominent features to be observed in such photographs - water,rock outcrops,alpine slides,snow,ice and forest types."

Uses of air photography in planning[in Pennsylvania]. Pa.State Planning Bd.,Pa.Planning 7(3):3-7. Nov.1940. 280.7 P383

Among the things listed indicating what air maps of Pennsylvania have shown are the beginnings of erosion that might well lead to great agricultural loss in the near future and improper or dangerous uses of land,such as disfigurement by culm banks and wasteful types of planting on hill slopes.

A bibliography is given on p.20.

American Society of Agronomy

[American society of agronomy] Minutes of the thirty-third annual meeting. Amer.Soc.Agron.Jour.32(12):978-1005. Dec.1940. 4 Am34P

Committee reports:Bibliography of field experiments(H.M.Steece,chairman)pp.984-986;Pasture improvement(O.S.Aamodt,chairman)pp.986-990;Soil tilth(L.D.Baver,chairman)p.991.

Beavers

Cook,D.B. Beaver-trout relations. Jour.Mammal.21(4):397-401. Nov. 1940. 410 J823

"Literature cited,"p.401.

"From this discussion it is apparent that the presence of beaver on

a trout stream may be of considerable benefit or harm to trout,depending on the total effect of a number of divergent factors...

"Many...values are involved in beaver ponds.The storage of water by a series of ponds may be considerable,both in the ponds themselves and in the additional ground water held in the soil because of the raised water table.The ponds are ideal breeding places for black ducks.Deer, muskrat,raccoon and otter may use them.Finally,the pelts of the beaver themselves are an item of no mean value.They probably represent the highest net return per acre of any use to which forest land can be put.

"In view of these many values,it is imperative that the activities of the beaver be fairly judged and that the animals be condemned as harmful to trout only on valid evidence."

Bio-dynamic Farming

Davis,L.D. Is the bio-dynamic method practical? Free Amer.4(9):6-9. Sept.1940.

Coast and Pond Shore Stabilization

Du-Plat-Taylor,F.M.G. The prevention of coast erosion. Inst.Civ.Engin. Jour.15(1):53-60,illus. Nov.1940. 290.9 In74J

A discussion of measures to stop erosion of the coast of the British Isles,including sea-walls and groynes.The author avoids planting.

Gunston,J. The prevention of coastal erosion.Remarkably successful experiments at Holkham[Eng.] Field 176(4571):148-149,illus. Aug.3, 1940. 10 F45

Describes tree planting.

Osborn,Ben. Native plants stabilize pond shores. U.S.Soil Conserv. Serv.,Soil Conserv.6(6):144-145,illus. Dec.1940. 1.6 So3S

Describes the manner in which the shores and inlet channel of a pond were stabilized on the farm of E.R.Sherwin,near Elk City,Okla.

Conservation

Ascher,C.S. National planning. Social Ed.4(8):533-537. Dec. 1940. 280.8 Sol23

Traces national planning,by government,mentioning conservation in particular.

Bunce,A.C. Time preference and conservation. Jour.Farm Econ.22(3): 533-543. Aug.1940. 290.8 J822

A criticism of the use of time preference concepts in relation to conservation.

"From a research point of view" says the writer, "we need to determine where conservation is economic and where exploitation is economic... The next step would appear to be an attempt to discover the areas where action is urgently needed and where the relative returns from conservation investments will be the greatest.The third step would be an analysis of the factors which cause or permit exploitation to continue long after it has become economic to conserve.If the problem is largely one

of insecurity of tenure then the development of a more permanent system of land occupation would be the best method of attacking the problem.If ignorance or the force of custom is a major factor then education and the introduction of opposing social pressures seems the logical procedure to achieve the changes needed.If imperfections in the pricing system,particularly the capital market are major causes, then social action should be directed at improving these conditions. It is the author's belief that there is far more un-economic exploitation than we can control and remedy during the next quarter of a century.If we spend all our energies and funds in this field rather than spread them over the whole nation to obtain conservation everywhere, we may achieve more."

Leggett,R.F. Conservation. Canad.Forum 20(238):235-237. Nov.1940. L.C.
The writer reviews the parts of the Rowell-Sirois commission(Canadian) report on provincial-dominion relations,concerning conservation as a national policy and emphasizes the fact that little is to be found."As a clarion call to action to the Canadian people,the statement can hardly be regarded as adequate,"he indicates.He quotes Dr.J.J.O'Neill,of McGill University as follows:"Why should autocracies have a monopoly on five-,ten-, or fifty-year plans?Is our collective intelligence less than that of a dictator or a bureaucracy?...Why not take out some insurance for the continued prosperity and development of the country as a whole?"

McDermott,W.F. Wisconsin goes wild! Rotarian 57(5):10-13,illus. Nov.1940. L.C.
Wisconsin by virtue of its rural zoning law is "going wild" in an intelligent and courageous way.In an effort to restore its natural resources,it is acquiring wilderness settlements and submarginal cut-over farms on a vast scale - in other words,it is turning the land back to nature.

Van Dresser,Cleland. The Indian rebuilds. Amer.Wildlife 29(6):259-261,illus. Nov./Dec.1940. 412.9 Am32
With Uncle Sam's cooperation "the Indian is performing his part of the job of conservation of natural resources".

Walcott,F.C. Defend conservation. Amer.Wildlife 29(6):249-255,illus. Nov./Dec.1940. 412.9 Am32
Speech before the Maryland State Game and Fish Protective Association,Baltimore,December 7,1940.
Advocates the appointment of a National Advisory Board for Conservation to advise how our natural resources can be used for defense needs without imperilling the future supply.
Following Senator Walcott's speech the Maryland State Game and Fish Protective Association unanimously approved a petition,to be transmitted to President Roosevelt.It is quoted.

Contour Furrowing

[American society of agricultural engineers.Committee on soil erosion.Subcommittee on contour furrowing.] Progress in contour furrowing. Agr. Engin.21(12):483-484,488. Dec.1940. 58.8 Ag83
Intended as a supplement to the 1938-39 report. E.C.Buie,chairman.

County Planning

Crawford,J.G.and Lange,Gunnar. County planning for land-use adjustment. Jour.Farm Econ.22(2):473-483. May 1940. 280.8 J822

Roy,K.B. Yell[county,Ark.]applies democracy to land planning. Ark. Farmer 42(12):6,illus. Dec.1940. 6 Ar42

Teton County[Montana]likes "planning".Nation's no.1 "Guinea Pig" idea now adopted as a national policy. Mont.Farmer 28(3):5,illus. Oct. 1,1940. 6 M764

Dams

Brenneke,A.M. Metal crest for Denison's earth dam.New use is found for Armco bin-type retaining wall in northern Texas. Highway Mag. 31:271-273,illus. Dec.1940. 288.8 H53

Creek bottom catchbasin at Mud Mountain dam[to control floods and debris] Engin.News-Rec.126(1):44,illus. Jan.2,1941. 290.8 En34

First dams built for the Willamette basin project.Construction advances on Fern Ridge and Cottage Grove jobs in Oregon under direction of the Corps of engineers. West.Construct.News 15(10):340-342,illus. Oct. 1940. 290.8 W522

Includes reservoir,outlet control and spillway capacity data on Fern Ridge and Cottage Grove dams.

Defense Aspects

Agriculture... Effect of decentralization of defense industries on the farm labor problem;prospect of expanded demand in 1941 for dairy products and meats. U.S.Council of Natl.Defense,Defense 2(1):5-6. Jan.7,1941. 173.3 D36

Briefly mentions land acquisition problems and plans arising in connection with the establishment of defense facilities in rural areas.

Hadley,Ed. Washington roundup. Country Gent.111(1):18,26. Jan. 1941. 6 C833

Outlines the farm program,coming to the fore,known as the Alabama plan,in which officials of SCS see "a direct knitting together of their work with that of AAA".

Refers also to land acquisition activities of SCS in connection with the national defense program and army training camps.

Land use planning for defense. U.S.Ext.Serv.,Ext.Serv.Rev.11(11):141. Nov.1940. 1 Ex892E

"Looming more important than ever,in view of the national defense program,is county land use planning.The part that county and community planning committees are playing in building and maintaining a strong defense can be gathered from a description of the work in Miami County,Ohio."

Range conservation program helping coastal stockmen to improve lands. Importance of livestock industry to national defense stressed. Coastal Cattleman 6(9):5-7,illus. Nov.1940. 48.8 C63
Refers particularly to the AAA range conservation program in Texas.

Drought

Samuelson,Walt. Drouths do not run in cycles. West.Farm Life 42(23): 5,illus. Dec.1,1940. 6 R153
Reports some of the findings of Harry Weekly,of the North Platte, Nebraska state experimental farm,regarding drouth in Nebraska.

Dryland Farming

Finnell,H.H. Yardsticks and the four-card draw. U.S.Bur.Agr.Econ. Land Policy Rev.3(6):19-22. Oct.1940. 1 Ec7La
"Many wheat farmers of the Southern Great Plains have been accused of operating on the principle of everything to gain and nothing to lose.'Playing them blind' may be all right some times,but,with poker as an example,the advice is here given that the dryland farmer consider well his first four cards(July rainfall;soil moisture store; accumulated amount of available nitrogen;incorporated unrotted trashy residue from the previous crop)before staying in or making a raise."

Dust Bowl

Dust storms clog sewage plant filter. Engin.News-Rec.125(25):828. Dec.19,1940. 290.8 En34
"As the efficiency of the trickling filters at the sewage treatment plant of Huron,S.D.,was found to be far below normal,part of the stone was removed and disclosed that the filters were clogged with mud and dirt to a depth of 2 or 3 ft.The probable reason for this accumulation, as reported by Alfred Ross,superintendent of the plant,in The Clarifier, official bulletin of the South Dakota State Board of Health,was the dust storms of a few years ago,during a period of high winds and drought. At that time,the storms sometimes piled wind-borne material on the filters.By the use of high-pressure fire streams this foreign matter was flushed out,so that the efficiency of the filters gradually returned to nearly normal.In spite of the excessive amount of mud and dirt collected by the filters,there had been no unusual ponding on the filter beds."
Entire article quoted.

Fuller,N.G. Walter Plagge - one who stayed in the dust bowl. U.S.Bur. Agr.Econ.Land Policy Rev.3(6):37-39. Oct.1940. 1 Ec7La
Soil conserving practices are helping a dust bowl farmer to win against big odds.

Henson,E.R. Borrowed time in the dust bowl. U.S.Bur.Agr.Econ.Land Policy Rev.3(6):3-7,illus. Oct.1940. 1 Ec7La
"The coordinator for the Southern Great Plains outlines the drought-made problems of his region and the attempts to solve them.He cites reasons for optimism and most important of all,he points out the paramount lesson of the drought years:'We must not forget."

Evaporation

Better evaporation data sought. Engin.News-Rec.125(25):831,illus. Dec.19,1940. 290.8 En34
To furnish engineers more reliable figures on evaporation as a basis for planning hydraulic projects, the U.S.Weather Bureau is using one of Salt Lake City's water reservoirs as a field laboratory to try out a new method - the water-vapor transport method - of determining evaporation from readings of temperature, humidity and wind velocities.
"Preliminary data reveal that floating pan evaporation varies within a range of 30 to 40 per cent of that measured from the land pan, and that computations of evaporation from vapor transport data will approach the true values determined from changes in reservoir level."

Mead,T.C. Use of floating pans in Lake Mead. U.S.Bur.Reclam.,Reclam. Era 30(11):316-317,illus. Nov.1940. 156.84 R24
Evaporation loss measurement.

Penman,H.L. Meteorological and soil factors affecting evaporation from fallow soil. Roy.Met.Soc.[London]Quart.Jour.66(287):401-410, illus. Oct.1940. 340.9 R81
"References,"p.410.

Powell,R.W. The evaporation of water from saturated surfaces. Engineering 150(3897):238-239,illus. Sept.20,1940; 150(3899):278-280,illus. Oct.4,1940. 290.8 En322
"Paper read before the Institution of Chemical Engineers,London, on Friday,March 8,1940. Abridged."

Farm Forestry

Advertising farm forestry. Amer.Forests 47(1):36,illus. Jan.1941. 99.8 F762
Describes some of the exhibits in a contest planned by the Texas Forest Service with the Texas Forestry Association, the Texas Forest Festival Association and the American Forestry Association as cooperators.

Harper,F.B. Clackamas[Oregon]farm forestry project. Timberman 41(12): 18-19,62,64-65,illus. Oct.1940. 99.81 T484

Preston,J.F. Farm woodland - farm economy. U.S.Soil Conserv.Serv., Soil Conserv.6(6):149-151,illus. Dec.1940. 1.6 So3S

Telford,C.J. A custom mill that goes to the logs. Jour.Forestry 38(12): 938-940,illus. Dec.1940. 99.8 F768
"For decades the farm woodland owner has needed a neighborhood sawmill to come around and saw his logs into lumber, just as the wheat thresher and corn sheller have met his requirements for years. Herein is described a unique small sawmill and a method of operation which may fill the bill admirably for many farmers."
"...Farm economics and woodland forestry would benefit if a few thousand instead of two such mills were available."

Fertility

Albrecht,W.A. Soil casualties. Capper's Farmer 51(12):10,illus. Dec.1940. 6 M693
Cites instance of a Pike county,Missouri farmer recognizing that "livestock condition and animal behavior are testimony of defective forage feeds because of declining soil fertility."

Davis,K.S. Taking the road back to soil fertility. Better Crops with Plant Food 24(9):13-16,42,illus. Nov.1940. 6 B46
"This is the story of the Big Creek watershed - 155,000 acres of land in northern Missouri and southern Iowa,typical of some 11,000,000 acres that make up one of the Midwest's major 'erosion problem areas'. This is the story of the land of the people who live on it,of what they did to it,and of what they are now doing to restore it."

Floods and Flood Control

Benson,J.L.,Foster,H.A.,and Foster,E.E. Maximum probable floods on Pennsylvania streams.Discussion. Amer.Soc.Civ.Engin.Proc.66(10): 1849-1857. Dec.1940. 290.9 Am3P
Paper with above title,by Charles F.Ruff,was published in September, 1940,Proceedings.

Kerr,H.W. The recent Burdekin flood and its lesson. Queensland Bur. Sugar Expt.Stas.,Cane Growers' Quart.Bul.8(1):33-40,illus. July 1, 1940. 65.9 Q3C
Erosion damage in the lower Burdekin district of Queensland is discussed and depicted by numerous illustrations.
Also in Queensland Agr.Jour.5(4):111-118,illus. Aug.1,1940.

U.S. Supreme court[on Dec.16,1940,in 15 year old New River case]broadens federal river control. Engin.News-Rec.125(25):803,illus. Dec.19, 1940. 290.8 En34
"Court holds that any stream that can be made navigable is under federal control and that such control includes power development,regulation of floods and watershed development."

Flow of Water

Wilm,H.G. Measuring flow in open channels. Engin.News-Rec.125(23): 754,illus. Dec.5,1940. 290.8 En34
Suggests as a substitute for the standard current-meters and pitot tubes,a 1x3-in. rod or staff of strong wood and convenient length, with beveled edges sheathed with thin copper and a brass plate on the bottom.Calibrations are shown,in feet and tenths by bands painted completely around the rod.

Youngquist,Vernon. Measuring Ohio's rivers. Stream flow during the 1940 climatic year. Ohio State Univ.,Engin.Expt.Sta.News 12(5):15-16,illus. Dec.1940. 290.9 Oh3En

Forests and Forestry

Christ,J.H. Timber and cut-over land problems in the Pacific Northwest. U.S.Soil Conserv.Serv.,Soil Conserv.6(6):153-155,164,illus. Dec.1940. 1.6 So3S

Fulmer,W.L. Forestry conference. Amer.Nurseryman 73(1):28-29. Jan.1,1941. 80 Am371

The Washington state forestry conference,meeting December 5,1940 "took the most drastic and far-reaching action ever undertaken to regulate the industry.

"The main object is to compel all forest owners throughout the state to make reforestation practice uniform.Each operator cutting timber must leave a block of seed trees to insure future growth, provide adequate fire protection and eventually establish a forestry practice toward a perpetual yield."

Hall,J.A. Bright young men whistle in the wind. U.S.Bur.Agr.Econ., Land Policy Rev.3(7):14-17. Nov.1940. 1 Ec7La

"In this challenging discussion,addressed primarily to men in the Forest Service,a veteran forester describes the maladjustment of a large group in 'submarginal' areas of the Central States.Much can be done,he says, 'but it will require more than bulletins or radio speeches,or bright young men to make farm plans and run contours'."

He sketches in very broad terms a program that appeals to him as practical - "one that envisions the Forest Service in the role of a real land-management agency dealing not only with forest lands and the marketing of timber but with resident families who make their subsistence from small areas of plow land under the control of the Forest Service and derive cash income from labor in the forest and on the products of the forest."

Holdridge,L.R. The possibility of close co-operation for mutual benefit between agriculture and forestry in the American tropics. Indian Forester 66(10):630-636. Oct.1940. 99.8 In2

Refers to Puerto Rico in particular.

Olson,C.E. Forests in the Arizona desert. Jour.Forestry 38(12):956-959,illus. Dec.1940. 99.8 F768

A description of mesquite forests and their economic importance.

Frost Penetration

Fuller,H.U. Studies of frost penetration. New England Waterworks Assoc.Jour.54(3):275-281,illus. Sept.1940. 292.9 N44

"Tabulations and diagrams indicating frost penetration of gravel and clay experiment carried on by the Portland,Maine Water district.

Grasses and Grassland

Awakening interest in grassland farming.A symposium. U.S.Bur.Agr.Econ. Land Policy Rev.3(6):24-31. Oct.1940. 1 Ec7La

Uses and values of grass,by P.V.Cardon;As it once was,by W.G.McGinnies; Nature's way,by O.S.Aamodt;New directions,by S.H.Watson.

Booth,W.E. Getting grass back on abandoned crop land[in Oklahoma and Texas] Cattleman 27(8):72. Jan.1941. 49 C29

Enlow,C.R. Adjusting farms to a grassland agriculture. Natl.Seedsman 7(5):6-7,28-29,illus. Nov.1940. 61.8 N21
"Soil conservationist shows how grassland agriculture,advocated in October issue of National Seedsman,can be practically applied to farms. And how it forebodes a future for field seed sales."

Fischer,G.W. Grass diseases in the Pacific Northwest in 1940. U.S. Bur.Plant Indus.,Plant Dis.Rptr.24(23):481-503. Dec.15,1940. 1.9 P69P
"In 1940 the writer reported on the grass diseases found in the observational row nurseries of the Pullman,Washington Nursery Unit of the Soil Conservation Nurseries.The present report,while based principally on the diseases occurring in the same nurseries in 1940,has been enlarged to include all grass diseases collected or observed elsewhere in the Pacific Northwest during the 1940 season.Of the latter, most were collected or observed in the State of Washington,although Idaho,Oregon,and Utah are also represented.A few specimens have been sent in from California and Nevada.Forty-four diseases on 130 species of grasses are reported,including 9 leaf-spots,15 smuts,and 14 rusts."

Hull,A.C.,jr. Bulbous bluegrass,valuable for reseeding intermountain ranges. Natl.Wool Grower 30(8):32-33,41-44,illus. Aug.1940. 45.8 N21N

Joseph Page and his oasis of grass. Ariz.Prod.19(24):20,illus. Nov. 23,1940. 6 Ar44
By fencing,controlled grazing and moisture conservation,an Arizona farmer demonstrated what deserts can be when used and not abused.The University of Arizona now owns the farm and is working out a cooperative arrangement with the Forest Service and SCS.

Law,A.G.and Anderson,K.L. The effect of selection and inbreeding on the growth of big bluestem(Andropogon furcatus,Muhl) Amer.Soc.Agron. Jour.32(12):931-943,illus. Dec.1940. 4 Am34P
"Literature cited,"p.943.

McAtee,W.L. When a grass is not a grass. Nature Mag.34(1):23,47,illus. Jan.1941. 409.6 N214

Stevenson,E.V. The economic significance of grass in American agriculture. Cattleman 27(8):21,24-26. Jan.1941. 49 C29

Ground Water

Hubert,M.K. The theory of ground-water motion. Jour.Geol.48(8): 785-944,illus. Nov./Dec.1940. 403 J82

Meinzer,O.E.and Wenzel,L.K. Present status of our knowledge regarding the hydraulics of ground water. Econ.Geol.35(8):915-941,illus. Dec. 1940. 403 Ec7
"Publications cited,"pp.940-941.

Infiltration

Lauritzen,C.W.and Stoltenberg,N.L. Some factors which influence infiltration and its measurement in Houston black clay. Amer.Soc.Agron. Jour.32(11):853-866,illus. Nov.1940. 4 Am34P
"Literature cited,"p.866.

Irrigation and Drainage

[American society of agricultural engineers.Committee on land drainage] Drainage problems[1939-1940]. Agr.Engin.21(12):482. Dec.1940. 58.8 Ag83
J.G.Sutton,chairman.

Angell,G.N. Facts and case histories on irrigation in Washington. Wash.Farmer 65(18):451,illus. Aug.29,1940. 6 R151
What does it cost?When is it practical?The case of Harvey Shoultes; The case of Joe McGowan;The case of Weiks brothers;The case of Dave Scherruble;How do you get a water right?About pumps.

Bose,N.K. Mathematics in irrigation. Sci.and Cult.4(12):685-691,illus. June 1939. 475 Sci24

Carter,Keith. Matt Tomish makes it rain.Unusual sprinkling system takes fifty percent less water,owner says. Nebr.Farmer 82(22):7,14, illus. Nov.2,1940. 6 N27

Davies,M.F. Irrigation in the Canterbury plains. Geography 25(128): 68-75,illus. June 1940. L.C.
Describes a system of irrigation initiated by the New Zealand government with the object of increasing the production of grass and fodder crops and of preventing the wilting or dying out of the pasture during a dry season.
"The present scale of the sheep-rearing industry was made possible only by the construction of a close network of races which now carry water to every part."

Debler,E.B. Stabilization by irrigation. U.S.Bur.Reclam.Reclam.Era 30(11):309-311,illus. Nov.1940. 156.84 R24
Statement presented to Special committee of House of Representatives investigating interstate migration of destitute citizens,Lincoln,Nebr., Sept.17,1940.
Table indicates present and potential irrigation development in western United States.

Harrington,E.R. A history of irrigation in Idaho's Snake river valley. Sixty years of reclamation solving problems resulting from peculiar lava bed formation. West.Construct.News 15(10):346-349,illus. Oct. 1940. 290.8 W522

Haswell,J.R. Farm drainage and erosion control in highway engineering. Agr.Engin.21(12):490,illus. Dec.1940. 58.8 Ag83
Letter to the editor suggesting that "instead of limiting ourselves to back roads and byways we should make the requirements of the farmer,

as regards sufficient drainage outlet depth,felt with the various highway departments and railroads.Protection against erosion from their drains is also often necessary."

Irrigation research in India. Engineering 150(3906):403-405,illus. Nov.22,1940. 290.8 En322
A review of the annual report(date not given)of the Central Board Irrigation,India.Particular mention is made of reservoir silting.

Israelsen,O.W. Irrigation and drainage research. Utah Agr.Expt. Sta.,Farm and Home Sci.1(2):8,illus. June 1940. 100 Ut1F
"This is a popular summary of the objectives of the irrigation and drainage research of the station.Under the primary objective of the more efficient and economical utilization and control of the State's water resources are listed 10 secondary objectives constituting essential phases of the solution of the primary problem. Abs.U.S.Off.Expt.Stas.,Expt.Sta.Rec.83(4):548. Oct.1940.

Long,A.E. Every farm its own rainmaker. No.1 Growing market for needed equipment follows widespread successes with pump irrigation. Impl. and Tractor 55(19):[14]-16,illus. Sept.14,1940. 58.8 W41

Mason,W.A. Airport drainage is important. Soc.Amer.Mil.Engin.Bul. no.3, pp.17-19,illus., Oct.1940. L.C.

O'Brien,H.R. Water from the earth.The Great Plains conducts a vast experiment in well irrigation. Country Gent.111(1):16,illus. Jan. 1941. 6 C833

Scofield,C.S. Salt balance in irrigated areas. Jour.Agr.Res.61(1): 17-39,illus. July 1,1940. 1 Ag84J
"The objectives of the present paper are to describe methods and results(1)of field observations made to ascertain the quantities of dissolved salts carried to and removed from certain representative irrigated areas and(2)of a salt-balance experiment made at the Rubidoux Laboratory,Riverside,Calif."

Uruguayan irrigation commission. Pan.Amer.Union.Bul.74(8):602. Aug. 1940. 150.9 M76
"The Government of Uruguay,by means of Decree No.24/940,approved January 17,1940,established a new National Commission for the Promotion of Irrigation... In some areas an overabundance of water has caused serious soil erosion and in other parts a lack of water has resulted in equally severe damage to crops.Agricultural experts believe that once a good system of irrigation is established,it will result in a greater diversification of crops and in the cultivation of choice products which naturally will have a higher marketable value."

Land Management and Utilization

Anderson,Wilhelm. Land ownership and the nation's life. U.S.Bur. Agr.Econ.,Land Policy Rev.3(7):30-35. Nov.1940. 1 Ec7La
The writer believes that "the land tenure difficulties of this country lie primarily in our utter lack of any legislatively defined

National and State policies specifically designed to promote the more equitable and socially efficient adjustment of farm population to available soil resources...To approach the question intelligently,we must clarify our thinking concerning the social function of land in national life,and analyze carefully the elements of private property in land as presently legalized with a view to eliminating elements that obstruct that function.

"In land-use planning it is necessary to keep constantly in mind two types of productive efficiency:one individual,the other social.

Bausman,R.O. Social aspects of land use in Delaware. Jour.Farm Econ.22(3):637-640. Aug.1940. 280.8 J822

Grisham,Glen. Meeting today's needs in the land of manana. U.S. Bur.Agr.Econ.Land Policy Rev.3(6):32-36. Oct.1940. 1 Ec7La

Problems of human and land use adjustment planning in the El Pueblo community of New Mexico.

Holm,L.C. What is happening to "farms tailored to fit". U.S.Bur.Agr. Econ.Land Policy Rev.3(6):8-13,illus. Oct.1940. 1 Ec7La

Results of unit reorganization in the Great Plains which is an attempt to promote sound land use and establish a stable agricultural economy by assisting the individual operator to shift from a cash crop system of farming to a diversified livestock and feed crop system with the assistance of Farm Security Administration and Soil Conservation Service.

Page,G.B. Hopi land patterns. Plateau 13(2):29-36,illus. Oct.1940.

A discussion relative to the claims of the Hopi Navajo Indians and the land they use which must be considered in a planned revision of land use ways.

Salter,L.A.,jr. Social security: A new consideration in submarginal land policy. Jour.Land and Pub.Util.Econ.16(4):[468]-470. Nov. 1940. 282.8 J82

Sapirie,S.W. A "Swimmin Hole" with modern fittings. Engin.News-Rec. 125(25):840-842,illus. Dec.19,1940. 290.8 En34

"Crab Orchard Lake in southern Illinois[a land utilization project of SCS]is the latest addition to our recreational area developments where treated water and other sanitary control features have been applied to a natural swimming pool.Here are the working details of the purification equipment and the method of distributing treated water in the lake,along with information on beach and bath house lay-out."

A score card on the business of farming. Prog.Farmer(Tex.Ed.)56(1): 7,16,illus. Jan.1941. 6 T311

"This farm management score card is based on the original work of Joe A. Elliott of the Tennessee Extension Service,revised to fit Texas conditions by Sam A.McMillan,farm management specialist of Farm Security Administration,and Progressive Farmer editors."

The use of land is given consideration.

Sontey,G.C. A valley to hold to. Survey Graphic 29(7):391-399,illus. July 1940. 280.8 C37G

"Back of the TVA idea were many motives:national defense,conservation,flood control,power yardsticks,regional betterment generally. Mr.Stoney examines the methods through which TVA has helped folks in the Valley to help themselves.His article,in sequence to that of Director Lilienthal last month describes a democratic experience of which Americans may well be proud - especially in times like these."

Land Valuation

Ibach,D.B. Role of soil depletion in land valuation. Jour.Farm Econ.22(2):460-472,illus. May 1940. 280.8 J822

Thorfinnson,S.M. Tax assessment changes in Sargent county,N.D. Dak. Farmer 60(17):364-366. Sept.7,1940. 6 D14

Relates progress thus far in a study of land valuation for taxing. One of the first steps was an evaluation of the various soil types and classes in the county on a percentage basis.

A table indicates these ratings.

Man and Soil

Easterbrook,L.F. Man and the soil. New Statesman and Nation 20(499): 255-256. Sept.14,1940. 280.8 N2132

A discussion of principles set forth in two recent books,An Agricultural Testament,by Sir Albert Howard and Look to the Land,by Lord Northbourne.The underlying theme is summed up as follows:"We can ensure that our soil at least remains fertile.But it will mean more than a change in technique;it will mean a fundamental change in outlook,so that we think of the soil not in the dead terms of statistics but in terms of life,as the environment of which we are a part,whence we can draw nourishment for body and spirit,derive happiness as well as good food,and find again the well-being of a reborn rural civilisation."

Lymington,Lord. Soil and survival.Can the health of the land survive urban science? Country Life[London]88(2273):125-126. Aug.10, 1940. 80 C83

A reviewer interprets two books considered important because they deal with the soil as the foundation of our social structure.They are An Agricultural Testament,by Sir Albert Howard and Look to the Land, by Lord Northbourne.

Nursery Implements

Steavenson,H.A. The hammer mill as an important nursery implement. Jour.Forestry 38(4):356-361,illus. Apr.1940. 99.8 F768

"Literature cited,"p.361

Nutrition and Soil

A national program based upon nutrition. Agr.Leaders' Digest 22(1):6. Jan.1941. 275 Ar3

"The strange and interesting thing is that the nutritional housing and clothing projects of the nation are at the very root of a land planning program."

Parran,Thomas,jr. Improving America's diet. Sci.Digest 8(2):[21]-26. Aug.1940. 470 Sci27

"In a recent report O.D.Abbott correlates anemia and stunted mental and physical growth among children,with the kind of soil and with a severe nutritional disease of cattle foraging on certain white and gray sands in Florida.

"The soils are deficient in iron,copper,cobalt,and possibly other minerals.The addition of these to the diets of both children and animals produced a dramatic change in nutrition.

"A further relationship between the amount of iron in the soil and that in locally grown vegetables was shown by analysis of turnip greens,which varied from 258 parts per million when grown on productive soils to 56 parts per million when grown on deficient ones.The fertility of the soil influences the food value of the crops grown upon it.

"Animals feeding on depleted soils produce depleted milk.For example, cows fed on a good grade of alfalfa hay produce milk with five times as much vitamin A in it as Po cows fed on a poor grade of timothy hay. Thus,soil conservation has a direct relationship to nutritional status."

"Condensed from Technology Review,June 1940."

The Plan,soil and nutrition laboratory building of the Federal Government at Cornell University. Science 92(2396):501-502. Nov.29, 1940. 470 Sci2

"The United States Plant,Soil and Nutrition Laboratory Building which the Federal Government has erected at Ithaca...opened this autumn under the direction of Dr.Leonard A.Maynard,professor of animal nutrition at the University...

"...The laboratory 'will attempt to coordinate all present knowledge of vitamins,the effect of minor mineral elements on plants,and the results of lack of essential elements on the health and growth of animals and people.It will,in general enlarge present knowledge of plant and animal nutrition and project present knowledge into new field'."

Rainfall and Percipitation

Abnormal rainfall in Texas. Engin.News-Rec.126(1):21,illus. Jan.2, 1941. 290.8 En34

Includes table of "Peak discharges of the Colorado river in Texas during flood of June 29-30,1940" and "Isohetal map showing rainfall concentrations in the lower valley of the Colorado River and adjoining streams in Texas,June 29-30.This rain fell in a 36-hr.period."

Clarke-Hafstad,Katharine. Reliability of station-year rainfall frequency determinations. Amer.Soc.Civ.Engin.Proc.66(9):1603-1622, illus. Nov.1940. 290.9 Am3P
"The accuracy of rainfall frequency values should be considered carefully in the design of flood and erosion control structures.This paper is concerned with the factors affecting the accuracy of rainfall frequency determinations.A method involving a statistical test for persistence is suggested for estimating the reliability of frequencies calculated by the station-year method."

Hopkins,J.W. Agricultural meteorology:a statistical study of conservation of precipitation by summer fallowed soil tanks at Swift Current Saskatchewan. Canad.Jour.Res.18(8):388-400. Aug.1940. 330.9 C16Ca
Intensity as well as the total amount of precipitation is emphasized as a factor of prime importance in its relation to soil moisture under semi-arid conditions.

Range and Pasture Management

Airy,John. Brome for more pasture.Seeding and cropping methods for a new hay-and grazing partnership -brome-alfalfa - which holds down poor soil and stands off drought. Successful Farming 39(1):10,21, illus. Jan.1941. 6 Sul2

Bell,H.M. Influence of range and water conservation. Southwest. Sheep and Goat Raiser 10(11):10-11. Aug.1940. 45.8 So85

Campbell,R.S. Range management research methods in the western United States. Imp.Bur.Pastures and Forage Crops.,Herbage Rev.8(3/4):[121]-138. Sept./Dec.1940. 64.8 Im7H
"References,"p.138.

Costello,D.F. More beef and more grass object of grazing tests in short-grass country. Westerner 3(10):3-4,15,illus. Dec.1940. 49 W522
"How to produce more high quality beef and leave more grass on the range at the same time may be like 'eating your cake and having it, too,'but such is the object of tests now being made by the United States Forest Service on the Central Plains Experiment Range near Nunn in Weld County,Colorado,in cooperation with the Soil Conservation Service.This experimental range is a field branch of the Rocky Mountain Forest and Range Experiment Station,maintained by the Forest Service at Colorado State college in Fort Collins."

Haines,F.D. The western limits of the buffalo range. Pacific Northwest Quart.31(4):389-398. Oct.1940. 134.8 W27
A historian determines the western limits of the buffalo range based on historical records and testimony of hunters.

Lang,R.L. Effect of scraping off the shrub species on the grazing capacity of the range. Natl.Wool Grower 30(10):13-14,illus. Oct. 1940. 45.8 N21N
Data obtained from a one-year study at the University of Wyoming indicate that it is not possible "to draw definite conclusions as to

the advisability of removing the shrubby cover from our semi-arid lands in an attempt to increase the grazing capacity by an increase in perennial grasses. These data, however, seem to indicate that such steps should not be taken until a thorough investigation has been made of the possibilities of grass to survive and become the dominant vegetation under the environmental conditions to which the area is subject."

Lantow, J.L. and Flory, E.L. Fluctuating forage production. Its significance in proper range and livestock management on Southwestern ranges. U.S. Soil Conserv. Serv., Soil Conserv. 6(6):137-144, illus. Dec. 1940. 1.6 So3S
"Bibliography," p.144.

Lehmann, V.W. Drums of the dying. The story of the Attwater prairie chicken. Nature Mag. 34(1):35-36, 47, illus. Jan. 1941. 409.6 N214
A plea for large tracts of rigidly-protected, moderately-grazed and moderately burned prairie land, essential for prairie chicken survival. The "heyday" of the Attwater prairie chicken was before man exploited the range.

The Navajo Indians as businessmen. U.S. Off. Indian Aff. Indians at Work 8(5):8-11, illus. Jan. 1941. 156.5 In23
A record of progress submitted by the Navajo Committee indicating the cooperative endeavor to create fine grazing land on the Indian reservation at Mexican Springs, N.M. since the initiation of erosion control work.

Pidgeon, I.M. and Ashby, Eric. Studies in applied ecology. I. A statistical analysis of regeneration following protection from grazing. Linn. Soc. N.S. Wales, Proc. 65(pts. 1-2)(287-288):123-143, illus. May 15, 1940. 514 Sy2
"Literature cited," p.143.
"The present paper initiates a series of studies in the effects of deliberate changes in the environment upon vegetation [of] the country surrounding Broken Hill, New South Wales."

Van Doren, C.A. and others. Effect of soil treatment and grazing management on the productivity, erosion, and run-off from pasture land. Amer. Soc. Agron. Jour. 32(11):877-887, illus. Nov. 1940. 4 Am34P
"Literature cited," p.887.
Joint authors - Purlison, W.L., Gard, L.E., and Fuelleman, R.F.

Research Organization

Schreiner, I.J. Research organization and research cost accounts. Jour. Forestry 38(12):909-915, illus. Dec. 1940. 99.8 F768
This discussion, written by a Forest Service staff member, is based upon sixteen years' participation in several fields of research conducted by academic, industrial, and governmental agencies, and with full realization that efficient organization is in existence on many research projects. The author unequivocally acknowledges that there are undoubtedly many ways adequately to organize research--this paper is an argument for a more general recognition of the value of formal organization and a brief discussion of one system that works."

Reservoirs

Reservoir capacity threatened by erosion. Engin.News-Rec. News Issue pp.[648]-649. Nov.14,1940. 290.8 En34
Brief summary of address by Carl B.Brown at the Four States Section of the American Water Works Association meeting,Wilmington,Del.,Nov. 7-8,1940.He outlines 3 practical methods for silt control.

Reservoirs and dams. Engin.News Rec.125(21):688-692,illus. Nov.21, 1930. 290.8 En34
"Three reservoirs and dams with connecting tunnels will be constructed on part of the Delaware water supply system.This article deals with the physical,hydrological and geological characteristics of the watersheds,and also gives the design of the Merriman dam.This dam is a rolled earth structure with caisson cutoff walls."

Run-off

Cardwell,D.W. Runoff from small agricultural watersheds. Agr.Engin. 21(12):479-482,illus. Dec.1940. 58.8 Ag83
"Bibliography,"p.482.
Discusses analyses of runoff data from Danville,Va.and Americus,Georgia.

Sand Dunes

Bell,J.E. Kikuyu grass has a place in holding sand dunes[in New Zealand] New Zeal.Jour.Agr.61(5):347-348,illus. Nov.15,1940. 23 N48J
"Although kikuyu grass,because of its spreading tendencies,is dangerous on agricultural land,it is worth consideration as an aid to holding sand dunes."

Sykes,F.J. How to tie down a sand dune. U.S.Bur.Agr.Econ.Land Policy Rev.3(6):14-17. Oct.1940. 1 Ec7La
Stabilization,in a hurry,of troublesome sand dunes at the $14,000,000 dam and reservoir project at Caddoa,Colo.undertaken by Army engineers.
Mulching was found to be successful.

Trees control sand drifting in areas where nature plays oddest pranks. Outdoor Ind.7(11):5,26,illus. Dec.1940. 279.8 Ou82
"At Indiana Dunes state park foresters prevent erosion where fill-in of sands made road maintenance expensive."

Sedimentation and Silt

Sidwell,Raymond. Sediments transported by the Brazos River from High Plains,Texas. Jour.Sedimentary Petrology 10(3):[138]-141,illus. Dec.1940. 398.8 J82

Seeds and Seedlings

Cooper,W.E. Frost heaving and damage to black locust seedlings. Ecology 21(4):501-504,illus. Oct.1940. 410 Ec7

Lowe,A.E. Viability of buffalo grass seeds found in the walls of a sod house. Amer.Soc.Agron.Jour.32(11):891-893,illus. Nov.1940. 4 Am34P

Poison-coated tree seeds foil rodents. Wash.Farmer 65(21):529. Oct. 10,1940. 6 R151
Method of coating tree seed with poison before planting,devised by U.S.Forest Service at Missoula,Montana and tested for two years,may make reforestation possible at a great saving in Idaho and Montana, areas where it has been practically impossible to grow trees by planting seeds because rodents ate the seeds almost as fast as planted.

Soil Aggregation

Elson,Jesse. A comparison of the effect of certain cropping and fertilizer and manuring practices on soil aggregation of Dunmore silt loam. Soil Sci.50(5):339-353,illus. Nov.1940. 56.8 So3
"References,"pp.352-353.

Soil Conservation

Bennett,H.H. Government program for 1941. U.S.Bur.Agr.Econ.Agr. Situation 24(12):9-11. Dec.1940. 1 Ec7Ag
A statement outlining the program of the U.S.Soil Conservation Program.

Bennett,H.H. Soil and water conservation in the Southern Great Plains. Soil Sci.50(6):435-448,illus. Dec.1940. 56.8 So3
Permanent control of erosion;conservation and utilization of rainfall; establishing a vegetative cover;cropping systems and soil conditions; establishing windbreaks;grazing on range lands;stabilization of dunes; meeting individual problems;economic aspects;word of warning.
Table 1,on page 441,shows "Effect of straw and different tillage treatments on the storage of water in the soil near Lincoln,Nebraska."

Bregger,J.T. New conservation practices replace the old in the peach orchard. U.S.Soil Conserv.Serv.,Soil Conserv.6(6):161-164,illus. Dec.1940. 1.6 So3S

Howard,I.M. Tenants step up. Successful Farming 39(1):16,21,65,illus. Jan.1941. 6 Su12
"A new spirit moves the Oklahoma tenant who did not go west to become an 'Okie,'but stayed at home and saved his soil."

McDonald,Angus. My father was a soil-builder. Harper's Mag.182(1087): [44]-52. Dec.1940.
Written by an SCS staff member,the article tells the story of Mr. McDonald's father's pioneering efforts in the furthering of soil conservation on an eastern Oklahoma farm.

Milne,G. Soil conservation - the research side. East African Agr. Jour.6(1):26-31. 1940. 24 Ea74
A summary account of the investigational side of soil conservation as seen in parts of the United States visited by the author in 1938.

Mitchell,M.R. Harbersham County...in the awakening South. Prog.Ed. 17(8):517-523,illus. Dec.1940. 275.8 P94
Soil conservation has a part in the Macedonia Cooperative Community program of Habersham County,Georgia.In the plan worked out there"are found work and rest,industry and agriculture,the approach of science to the problems of everyday living,cooperative plans in human adjustment,the conservation of human and natural resources through dairying on the one hand and a health program on the other."

Nolla,J.A.B. On soil conservation and its influence upon the agricultural economy of P.Rico. Chron.Bot.6(6):136. Dec.16,1940. 450 C46
Summary of address at 8th American Scientific Congress,1940.

Parker,R.L. Beekeepers and the soil conservation program. Amer.Bee Jour.80(12):540,illus. Dec.1940. 424.8 Am3
"There is a golden opportunity present for beekeepers in the areas in which alfalfa and sweet clover are a definite part of the Soil Conservation Program.There is an assured source of nectar each year and if colonies of bees are not available to gather nectar from these fine plants which are of much benefit to beekeeping,there will be a decided loss of a sugar crop in the state of Kansas.If beekeepers are near these areas in which the Soil Conservation work is being carried on,there is an excellent opportunity for increasing the number of colonies they now have and thus produce more honey than they have in the past."

Streamlined farms in Coon Valley[Wis.] Nation's Agr.15(9):7,16,illus. Oct.1940. 280.82 N39
Describes soil conserving practices on the Stromstad farm,in particular.

Taylor,F.J. Heretic in the promised land.Los Angeles' own Jiminy Cricket. Sat.Evening Post 213(25):27,62-64,illus. Dec.21,1940. 110 S
Dr.George P.Clements is said to be responsible,more than any other citizen,for making Los Angeles the first agricultural county in the United States. ..."He chased out the land racketeers,found new markets and crops,acted as volunteer liaison man between the urban and farm interests,fought for insect,erosion and soil control,bound the supporting agricultural area to Los Angeles."Some of his ideas on soil conservation are propounded.

Tucker,E.A.and Nelson,Peter. Does a program of conservation interfere with farm operations? Okla.Agr.Expt.Sta.,Current Farm Econ.13(5):130-135,illus. Oct.1940. 100 Ok4
"Investigations to determine the economic effects of a planned program of soil and water conservation in progress since 1937 in Payne and Muskogee counties[Okla.]have yielded results to date supporting the following general conclusions:(1)In the conservation program,farms cooperating and accepting conservation practices are those that can do so without making major changes in the kinds and amounts of crops and livestock produced;(2)Crop yields and farm incomes have not been decreased on the cooperating farms;(3)No increased time is required to perform farm operations on land where soil- and water-saving structures and practices are in use."

Waring,P.A. Honey Hollow Creek watershed. Towpath 1(8):7-8,20,22-23, illus. Sept.1940.
Farm planning for land conservation with SCS help in Solebury Township,Pennsylvania.

Woodburn,Russell. Soil conservation investigations,Zanesville,Ohio. Ky.Engin.2(2):[12]-13,19,illus. Mar.1940.
Mentions general program of the Zanesville station and rain simulator studies in particular.

Soil Conservation. Study and Teaching.

Blough,G.O. How does the surface of the earth change? Instr.50(3): 45-54,illus. Jan.1941.
Bibliography,p.46.
Illustrated unit of work for primary,middle and upper grades.

A conservation unit. Wis.Conserv.Bul.5(2):60-78. Nov.1940. 279.8 W752
Prepared by the Sussex,Wis.Public Schools.
"Conservation for Sussex boys and girls is merely a 'catalizer' for creating interest in conservation.Each boy and girl will discover additional questions of his own to ask,additional activities to work on,and additional sources to investigate..."

Fink,O.E. Developing the new program of conservation education in Ohio. 3pp. Jan.1940.
Reprint from Ohio Schools,Jan.1940.

Shoemaker,M.E. The educator's place in conservation. Pa.Game News 11(6):14,27,illus. Sept.1940. 412.9 P38Pe

Soil Conservation Districts

Bennett,H.H. Soil conservation districts - a defense tool. U.S. Ext.Serv.,Ext.Serv.Rev.11(11):146. Nov.1940. 1 Ex892Ex

Cohee,M.H. Self-governing principles of soil conservation districts. U.S.Soil Conserv.Serv.,Soil Conserv.6(6):156-160,164. Dec.1940. 1.6 So3S

It takes cooperation to lick soil erosion. Prairie Farmer 112(23):15, illus. Nov.16,1940. 6 P883B
Organization of the Munson soil conservation district in Illinois.

Winters,N.E. States cooperate in soil savings. Hawaii Farm and Home 3(10):5,34. Oct.15,1940. 25 H3191
Urges passage of enabling legislation in Hawaii to permit the creation of soil conservation districts.

Soil Erosion and Control

Bryan,Kirk. Erosion in the valleys of the southwest. N.Mex.Quart. 10(4):227-232. Nov.1940.

Erosion control with V-shaped ditches. Agr.Engin.21(12):490. Dec. 1940. 58.8 Ag83
From an article on "Intensive agriculture," by John F.Davis.

Ferris,G.E. Land use and soil erosion. Better Crops with Plant Food 24(10):37. Dec.1940. 6 B46
Reveals observations favoring less eroded farms over severely eroded farms after a study of 100 farms located in SCS demonstration project area in Ohio.

Gibbs,J.A. Five years of tree planting in the Ohio Valley. U.S.Soil Conserv.Serv.,Soil Conserv.6(6):146-149,illus. Dec.1940. 1.6 So3S
Table shows trend of tree plantings,1934-39 with an evident change from black locust to pine for gullies.
Recommendations for tree planting are made as a result of erosion-control observations and questions such as the following are answered. "What are the results?Have these new tree plantations survived?What species of trees are the best?Has erosion been controlled?Can other farmers successfully reclaim eroded areas on their farms by planting trees?"

Hawes,N.E. Soil losses from skidding operations in the Ouachita Mountains. U.S.South.Forest Expt.Sta.,South.Forestry Notes no.36, p[2], Nov.1940. 1.9 F7624S
"The effect of skidding operations on soil erosion is rarely considered by logging operators.That it should be,especially on steep slopes,has been found by a recent survey on the Irons Fork Experimental Forest,where these soil losses were measured.
"Analysis of erosion from 7 miles of skid trails on the watersheds revealed the influence of degree of slope on soil loss.On the clear-cut areas soil losses were greater by 40% on steep slopes than on gentle slopes,and on the selectively-cut areas soil losses were 100% greater on the steep slopes.The latter result is undoubtedly due to skidding of larger trees from the selectively-cut areas.
"Apparently,then,if topsoil losses and resulting decrease in growth of residual trees are to be kept at a minimum,some form of selective cutting should be used."

Jones,T.N. Series of factors involved in study of erosion control. Miss.Agr.Expt.Sta.,Miss.Farm Res.3(4):7. Apr.1940. 100 M69Mi
"Factors emphasized as of special importance in farm water disposal are(1)soil type and slope,(2)cropping system,(3)terraces,(4)terrace outlets,(5)woods,(6)ponds,etc.Effects of interplanting Crotalaria species with corn on 2.5, 5, 7.5, 10, and 12.5 percent slopes are shown in terms of the losses resulting from a rainfall of 2.74 in. during 2.5 hr.The cortalaria had reached a height of 6 in. at the time of the storm.It lessened the losses of soil very markedly as compared with those from the plats under corn alone. Abs.U.S.Off.Expt.Stas., Expt.Sta.Rec.83(4):548-549. Oct.1940.

Laws,J.O. Recent studies in raindrops and erosion. Agr.Engin.21(11): 431-433,illus. Nov.1940. 58.8 Ag83
"Bibliography,"p.433.
Presented before the Soil and Water Conservation Division of the American Society of Agricultural Engineers,State College,Pa., June 1940.

McNall,P.E. Economic phases in soil erosion control. Jour.Farm Econ.22(3):613-620. Aug.1940. 280.8 J822

Maits,C.B. Saved their land.How two 4-H boys stopped erosion[on a Maryland farm]. Natl.4-H Club News 18(11):11,illus. Nov. 1940. 275.28 N212

Rutherford,Nelson. Erosion control on [California] bean farms. Calif.Cult.87(25):[663],683. Dec.14,1940. 6 C12

Sears,P.B. The ecological basis for the rational exploitation of the soil(Las bases ecológicas para la explotacion racional del suelo) Pan.Amer.Union.Bol.74(11):705-718,illus. Nov.1940. 150.9 M76B
"Citas,"p.718.
Estudio leído en la Sección de Agricultura y Conservación del Octavo Congreso Cientifico Americano el 15 de mayo de 1940.
In Spanish.

Smith,C.C. Biotic and physiographic succession on abandoned eroded farmland[in Oklahoma] Ecol.Monog.10(3):[421]-484,illus. July 1940. 410 Ec72
"Bibliography,"pp.481-484.
"Based on a thesis submitted to the Faculty of the Graduate School of the University of Oklahoma in partial fulfillment of the requirements for the degree of Doctor of Philosophy,June 1939.Contribution from the Zoological Laboratories,University of Oklahoma.No.203 n.s."

Soil erosion law suit. West.Farm Life 42(22):6. Nov.15,1940. 6 R153
Editorial referring to law suit filed in Kit Carson county,Colo.by the Smoky Hill soil erosion district against Edward Zorn who broke ground on land w hich the district had ruled should not be plowed.
"The court battle that may materialize is not to determine whether the soil erosion district program is good or bad,but rather to determine the constitutionality of the law.Here is a question of personal rights in conflict with powers designated to the district board.
"If the erosion district control law will not 'hold water,' when contested legally,then the sooner this is known the better.It is impractical for soil erosion districts to plan their future work,if it may be nullified at any time in the near future."

Stauffer,R.S.,Muckenhirn,R.J.,and Odell,R.T. Organic carbon, pH, and aggregation of the soil of the Morrow plats as affected by type of cropping and manurial addition. Amer.Soc.Agron.Jour.32(11):819-832, illus. Nov.1940. 4 Am34P
"Literature cited,"pp.831-832.
"Examination and analysis of the samples and borings in the field showed considerable erosion had occurred on the plats of lower elevation and on which corn was grown continuously."

Wernicke,Edmundo. Observations on the erosion problem.(Observaciones sobre el problema de la erosion) Rev.Argentina de Agron.7(3):191-195. Sept.1940. 9 R327
In Spanish.
The writer refers to various recorded viewpoints of the erosion

problem all united in recognition of its danger.He holds,however, that unless the public is aroused,no laws will bear fruit.

Wilson,R.E. Use of brush for erosion control. U.S.Soil Conserv. Serv.,Soil Conserv.6(6):152-153. Dec.1940. 1.6 So3S

Soil Erosion and Control. Foreign Countries.

Anti-erosion measures for railway protection. East African Agr.Jour. 6(1):31. 1940. 24 Ea74
"A note on practice in Tanganyika showing that protection of the permanent way where frequent wash-outs formerly occurred can be obtained by contouring and gully-stopping on land above the railway; at the same time a large area of land can be reclaimed." Abs.Imp. Bur.Soil Sci.,Soils and Fert.3(6):261. 1940.

Archibald,E.S. Prairie farm rehabilitation. Canad.Geog.Jour.21(4): 158-[171],illus. Oct.1940. L.C.
Historical background;the drought crisis,Prairie farm rehabilitation act;Dominion experimental farms,and the P.F.R.A.programme; special activities;problems including, 1.The production of crops under conditions of scanty and irregular rainfall;2.The control of soil drifting;3.The proper use of land;4.The improvement of living conditions on farms.

Arthur,J.K. Trees return to the Holy Land. Amer.Forests 46(12):535-538,576,illus. Dec.1940. 99.8 F762
"Now in Palestine the olive,the palm,the cedar and the eucalyptus rise again,after centuries of neglect - not for beauty's sake but because every tree planted there means an extra foot of soil reclaimed for the wandering peoples of Israel.So far over two and a half million trees have been planted in a great reclamation program in the Holy Land."

[Central board of agriculture.] Report of the proceedings of the ninth meeting. Trop.Agr.[Ceylon]95(2):120-126. Aug.1940. 26 T751
Soil conservation ordinance[Ceylon], pp.122-123.

Checking soil washing on hillside banana land[in Queensland] Queensland Agr.Jour.54(2):118. Aug.1,1940. 23 Q33
"Cavendish and Mons Marie varieties of bananas are usually grown on hillsides and mostly in soils of a free,fine,shaley nature,which tend to wash very freely.Much of this soil can be saved by placing logs at intervals athwart the slope.On most clearings many logs remain unburnt and can be put to good use in this way.
"All the straight lengths of timber up to,say,8 inches in diameter, will be found very useful in checking the downhill rush of water during heavy rains.
"After they have been levered or rolled across the hillsides they should be 'anchored' in position against stumps or by stakes and, possibly,large stones.It is not always possible to place them directly across the slope,because of the unevenness of the land,but they will prevent loss of surface soil,even if placed somewhat at an angle.
"Where the land is carrying large 'floaters' the stones also can be

used to advantage by placing them in half circles below the banana stools and filling in the intervening hollow with soil.

"When the plantation is in its second year and stripping of the lower leaves or desuckering is done, the material also can be placed with advantage along the logs to aid in preventing erosion."

Entire article quoted.

Colonial forestry and countryside problems. Nature[London]146(3705): [567]-568. Nov.2,1940. 472 N21

Refers to 1939 annual reports from Uganda and Nyasaland Forestry departments which indicate that they are "becoming more and more involved in the study of general rural development and land use".

"These proposals, together with those for the revised forest legislation, mark an important stage in efforts towards reform, and bring new emphasis on land conservation both as regards the selection of land for various purposes, and the conservation treatment of lands selected for agriculture and grazing. The land protection involved in forest policy, namely, the constitution of forest reserves in important catchment areas and watersheds, the closure to cultivation of steep hill slopes which in many cases become village forest areas, the enforcement of stream bank regulations, forms a really satisfactory nucleus for complete land planning in very many regions."

Erosion control in Victoria. Memorandum by Joint committee of institutes. Austral.Inst.Agr.Sci.Jour.6(3):136-139. Sept.1940. 23 Au74

This memorandum has been presented to the Victorian cabinet sub-committee on soil erosion legislation, 1940.

The law of conservation of the soils[of Argentina](La ley de conservacion de suelos) La Cosecha 3(28):21-22. Oct.1940. 9 C82

Quotes the message accompanying the law when it was signed and interprets parts of the law.

In Spanish.

Lowdermilk, W.C. The cedars of Lebanon -- then and now. But four small groves of the famous forest of Lebanon which gave its fragrant wood to temples and palaces, and around which the ancient Phoenicians first battled the menace of soil erosion. Amer.Forests 47(1):16-20,34,illus. Jan.1941. 99.8 F762

During a field trip and two airplane flights the writer found evidence of soil and water conservation practiced in ancient Phoenicia under Roman rule.

"The earliest recorded reference to agricultural terraces is in an inscription of Thutmose III on the walls of a temple at Karnak."

However, Dr. Lowdermilk states that "the tragedy of land misuse and wasteful neglect is written far and wide". He concludes the article with a plea for "an economy of conservation of material and human resources[as a]promise of the future against the barrenness of the past in its exploitation of peoples and the resources of the holy earth".

Ross, J.C. Soil and veld conservation. Farming in So.Africa 15(175): 371-372. Oct.1940. 24 So842

Describes the work of the various sections of the Division of Soil and Veld Conservation, South Africa Department of Agriculture.

Szabo,J.de. Anti-erosion measures for the side lines of dongas. Farming in So.Africa 15(176):420,illus. Nov.1940. 24 So842

Soil Moisture

LeCompte,S.B.,jr. Intermittently operated irrigator cones as indicators of soil-moisture condition in drying cylinder cultures of white lupine. Amer.Jour.Bot.27(8):586-595,illus. Oct.1940. 450 Am36
"Literature cited,"pp.594-595.

Soil Organic Matter

McKaig,Nelson,jr.,Carns,W.A.and Bowen,A.B. Soil organic matter and nitrogen as influenced by green manure crop management on Norfolk coarse sand. Amer.Soc.Agron.Jour.32(11):842-852,illus. Nov.1940 4 Am34P
"Literature cited,"p.852.

Soil Samplers

Slichter,F.B. A non-distorting soil sampler[developed recently by the Missouri River Division of the U.S.Engineer Department]. Engin.News-Rec.125(23):756-757,illus. Dec.5,1940. 290.8 En34

Soil Studies

[Holmes,J.M.] The science of the soil.A stocktaking of present trends. Linn.Soc.N.S.Wales,Proc.65(pts.1-2)(287-288):vi-xxiv,illus. May 15, 1940. 514 Sy2
The author traces the sequence of ideas on the science of the soil illustrated by a diagram on page xxiv.He states that "this century has seen a great renaissance in soil studies.By far the greatest interest is in problems which find themselves on the border lines of what used to be called the 'main branches of science',and therefore much of the recent literature on soil is found under climatology, botany,geology,chemistry,as well as under agriculture and forestry. More recently,geographical distribution methods have been applied to soil surveys with considerable success,and,under the impetus of modern roadmaking,engineering has been incorporated in the above group.
"But,struggling along in the wake of this renaissance,are a whole group of problems which can be classed under soil sociology.Indeed, this latter aspect bids fair to eclipse all other soil studies from the point of view of expenditure and human needs.In the United States of America,for example,the human and economic problems connected with soil wastage,especially in the wheat,cotton and tobacco belts,have forced the Soil Conservation Service to make intensive soil studies which practically amount to a reorganization of Soil Science."

Peterson,J.B. A microscopic method for determining the water-stable aggregates in soils. Soil Sci.50(5):331-338,illus. Nov.1940. 56.8 So3

Volk,N.J. The effect of soil characteristics and winter legumes on the leaching of potassium below the 8-inch depth in some Alabama soils. Amer.Soc.Agron.Jour.32(11):888-890,illus. Nov.1940. 4 Am34P

Wilson,J.K.and Schubert,H.J. The microflora in the soil and in the run-off from the soil. Amer.Soc.Agron.Jour.32(11):833-841,illus. Nov.1940. 4 Am34P
"Literature cited,"p.841.

Tensiometers

Russell,M.B.,Davis,F.E.and Blair,R.A. The use of tensiometers for following soil moisture conditions under corn. Amer.Soc.Agron.Jour. 32(12):922-930,illus. Dec.1940. 4 Am34P
"Literature cited,"p.930.

Stoeckeler,J.H.and Aamodt,Einar. Use of tensiometers in regulating watering in forest nurseries. Plant Physiol.15(4):589-607,illus. Oct.1940. 450 P692
"Literature cited,"pp.606-607.
"A description is given of several types of tensiometers and of their use in gauging the necessity of watering in conifer nurseries in the Lake States.Records are presented showing the performance of two of the instruments for a period of three to four months in two different nurseries.Calibration technique is described and the capillary potential of soil is shown to vary by texture and by addition of organic matter.A discussion is given to show how watering may influence development of nursery stock,especially as regards size,top-root ratio,frost hardiness,and drought resistance."

Terracing

Crosby,F.E. Lilliputian interlocking steel piling an aid in terrace outlet structures. Agr.Engin.21(11):434,illus. Nov.1940. 58.8 Ag83

Schoenleber,L.H. Terrace dimension changes and the movement of terrace ridges. Agr.Engin.21(12):477-478,illus. Dec.1940. 58.8 Ag83
Presented before Soil & Water Conservation Division,A.S.A.E.,Chicago, Ill.,Dec.5,1940.
Table I.Effect of different crops and tillage operations performed, on the various terrace dimensions.

Terraces that paid off in year. Farmer-Stockman 54(1):6. Jan.1, 1941. 6 Ok45
"B.W.McGinnis,[a Texas county,Oklahoma farmer]harvested the terraced and unterraced portions of the field separately and noted the yields. The 34.8 acres which had been given the benefit of terraces produced 23.3 bushels of barley an acre.The remaining 33.8 acres unterraced yielded only 16.2 bushels.At current prices the increased yield on terraced land amounted to $2.27 an acre,considerably more than the cost of terracing."

This gully-free farm was reclaimed by erosion control. Ariz.Prod.19(26): 4,illus. Dec.21,1940. 6 Ar44
A Pima,Arizona farmer,"for 20 years a soil conservationist in his farming practices,[tells]a Soil Conservation Service representative how he has raised this cotton field about 4' feet at the lower end by means of a silt-retaining terrace."

Water Conservation and Facilities

Carter,Keith. Water,lifeblood of agriculture will come to Mirage Flats. Nebr.Farmer 82(24):5,illus. Nov.30,1940. 6 N27
Plans for a project in Nebraska constructed under the Water Conservation and Utilization Act.

Dickson,R.E. Experiments in water and soil conservation. Cattleman 27(5):49-50. Oct.1940. 49 C29

Save snow water. Mont.Farmer 28(2):2. Sept.15,1940. 6 M764
Lists 4 effective methods for trapping snow moisture in Montana.

Wildlife

Bennitt,Rudolph. Wildlife conservation and geography. Jour.Geog. 39(6):[217]-225. Sept.1940. 278.8 J82

Davison,V.E. Better farming methods bring back wildlife. Va.Wildlife 4(1):16-20,illus. Autumn 1940. 410 V81

Hawbecker,A.C. Planting for California wildlife. Calif.Fish and Game 26(3):271-277,illus. July 1940. 410 C12
"References,"p.276.

Jenkins,Hal. Conservation farming benefits our wildlife. Outdoor Amer.5(7&8):4-5,illus. May-June 1940. 410 Iz1
Discusses conservation practices which represent the most significant changes in land use being applied in the Ohio Valley Region which affect wildlife populations.

Kistler,J.W. Common lespedeza.An important natural quail food plant. N.C.Wildlife Conserv.4(12):5-6,15-16,illus. Dec.1940. 279.8 N812
"References,"p.16.

Phillips,J.N. Planting trees for wildlife. Pa.Game News 11(6):3,31. Sept.1940. 412.9 P38Pe
Urges the planting of nut trees in particular.

Williamson,Fred. Wildlife conservation essential to agricultural development. La.Conserv.Rev.10(3):25-27,illus. Autumn 1940. 279.9 L93C

Wind Erosion Control

Construction of a road through banks of very fine soil(Construcdion de una carretera a traves de escarpas de polvo muy fino) Ingenieria Internac.28(11):32,60,88. Nov.1940.
In Spanish.
Studies of lands where there are large deposits of soil deposited by the wind,show that vertical slopes resist the action of water and wind.

Glade Park ranchers try crested wheatgrass. West.Farm Life 42(22):3, illus. Nov.15,1940. 6 R153
Farmers of the Glade Park,Colorado soil erosion district "have found a large part of the answer to their wind and water erosion problems in crested wheat grass".

Gorrie,R.M. Soil erosion caused by wind. Current Sci.[India].9(5): 222-223. May 1940. 475 Sci23
Also in Ind.Forester 66(9):579-582. Sept.1940.

Soil erosion by wind action. Engineering 150(3903):341-342,illus. Nov.1,1940; 150(3906):401-402,illus. Nov.22,1940. 290.8 En322
A review of conditions in foreign countries and the United States of America.

BOOK AND PAMPHLET NOTES AND ABSTRACTS

American fisheries society. Transactions,sixty-ninth annual meeting, San Francisco,California,June 26 and 27,1939. 340pp.,illus. Washington,D.C.,1940. Fish & Wildlife Survey Libr.
Partial contents:Fish production in terrace-water ponds in Alabama, by H.S.Swingle and E.V.Smith,pp.101-105(with bibliography);Placer mining silt and its relation to salmon and trout on the Pacific coast, by O.S.Smith,pp.225-230(with bibliography."The conclusion is drawn that silt,whether from placer mining or natural erosion,is harmful to salmon and trout if it is heavy enough to form a layer on the stream bottom or if it persists during periods between floods!")

American geophysical union. Transactions of 1940. 4 parts. Washington,D.C.,Published by the National research council of the National academy of sciences,July 1940. 330.9 Am3
Part I. Reports and papers,joint regional meeting section of hydrology and western interstate snow-survey conference,South pacific coast area,Stanford university,California,January 12-13,1940. Partial contents:The probability-viewpoint in hydrology,by E.L.Grant,pp.7-13 (including references and discussion);Description and results of operation of the Santa Clara valley water conservation district's project,by G.W.Hunt,pp.13-23;Ground-water,salt water infiltration, and ground-surface recession in Santa Clara valley,Santa Clara county, California,by C.F.Tolman and J.F.Poland,pp.23-35(including references and discussion);Hydrology of valley areas adjacent to the upper San Joaquin river,by G.H.Jones,pp.58-78;The use of hydraulic models in the design of suspended load samples,by J.P.O'Neill,pp.78-84;The San Dimas experimental forest,by C.J.Kraebel and J.D.Sinclair,pp.84-92; Round table report on the accuracy of stream-flow forecasts for 1939, pp.99-108;Soil moisture with reference to runoff(summary)by G.D.Clyde, p.119;A quantitative forecast system of runoff based on snow surveys at the mean elevation of the snow cover in the Merrimack basin(summary) by J.W.Salo,pp.119-120;Some factors affecting frost penetration:a summary,by H.B.Atkinson and C.E.Bay,p.121;Progress report on mountain snowfall program of the Weather bureau by Merrill Bernard and A.R.Codd,

pp.122-131;Problems of the Division of irrigation in forecasting water-supplies,by W.M.McLaughlin,pp.131-134.

Part II. Twenty-first annual meeting,April 24 to 27,1940,Washington, D.C.Reports and papers,general assembly and sections of geodesy, seismology,meteorology,terrestrial magnetism and electricity,oceanography,volcanology,hydrology and tectonophysics.Partial contents: Committee on evaporation and transpiration,1939-40(Joseph Kittredge, chairman)pp.406-409(including references);Advisory committee on the Soil conservation service(R.E.Horton,chairman)pp.409-410;Committee on infiltration,1939-40(G.W.Musgrave,chairman)pp.412-414;Soil porosity in relation to gaseous and water movement,by L.D.Baver,pp.414-433(with references and discussion):Committee on dynamics of streams,1939-40 (L.G.Straub,chairman)pp.443-450(with references);Notes on joint round-table on runoff and infiltration,pp.452-453;Report on exploratory study of rain-gage shields and enclosures at Coshocton,Ohio,by H.S. Riesbol,pp.474-482;Predicting headwater river stages directly from rainfall,by F.F.Snyder,pp.485-490;On the statistical analysis of rainfall-data,by H.C.S.Thom,pp.490-499;The effect of contour cultivation on runoff,by H.C.Knoblauch and J.L.Haynes,pp.499-504;Report on deficiences in hydrologic research,by Thorndike Saville,pp.504-505;The influence of a lodgepole pine forest on storage and melting of snow, by H.G.Wilm and M.H.Collet,pp.505-508;A year of evaporation from a natural land-surface,by C.W.Thornthwaite and Benjamin Holzman,pp.510-511;The evaporation-energy equations and their practical application, by N.W.Cummings,pp.512-522(with references);Infiltration capacity values as determined from a study of an eighteen-month record at Edwardsville,Illinois,by W.W.Horner and C.L.Lloyd,pp.522-541;Derivation of infiltration capacity(f)from average loss rates(fav)by L.K. Sherman,pp.541-550;Sprinkled plat runoff and infiltration experiments on Arizona desert-soils,by E.L.Beutner,R.R.Gaebe and R.E.Horton,pp. 550-558;A graphical method of analysis of sprinkled plat hydrographs, by A.L.Sharp and H.N.Holtan,pp.558-570;Ground water recharge in areas of deep water table in the Great Plains,by R.C.Cady,pp.570-574;Artificial drainage of land:stream line experiments.The artesian basin - II,by Don Kirkham,pp.587-593(references);A criterion for instability of flow in steep channels,by G.H.Keulegan and G.W.Patterson,pp.594-596;A rating curve method for determining silt discharge of streams, by F.B.Campbell and H.A.Bauder,pp.603-607;A study of sedimentation in a Miami conservancy district reservoir,by E.W.Lane and J.C.Kennedy,pp. 607-612;Suspended material transportation under non-equilibrium conditions,by A.A.Kalinske,pp.613-617(references);Channel storage and unit hydrograph studies,by W.B.Langbein,pp.620-628(references);A distinction between bed-load and suspended load in natural streams,by H.A.Einstein, A.G.Anderson,and J.W.Johnson,pp.628-633(references).The different approaches to the study of propulsion of granular materials and the value of their coordination,by Paul Nemenyi,pp.633-647(references): Synthetic unit hydrographs,distribution graphs and flood routing in the upper Ohio river basin,by N.R.Laden,T.L.Reilly and J.S.Minnotte, pp.649-659.

Part III. Regional meetings.(A)Richmond,Virginia,December,1938. (B and C) Seattle,Washington,June 1940.(A)Symposium with American association for the advancement of science.(B and C)Reports and papers, Western interstate snow-survey conference and Section of hydrology

(North Pacific coast and North continental divide areas.)Partial contents:A quantitative forecast-system for power and flood-warning in the Androscoggin river basin,Maine,by P.L.Bean and P.W.Thomas,pp. 835-858;A quantitative forecast-system of runoff based on snow-surveys at the mean elevation of the snow-cover,by J.V.Salo,pp.858-870;Soil-moisture studies as an aid in forecasting runoff from snow-cover,by G.D.Clyde,pp.871-873;Research on snow by the Forest Service,by C.A. Connaughton,pp.920-925;Some factors affecting frost penetration,by H.B.Atkinson and C.E.Bay,pp.935-951;The relation of snow to maximum flood peaks,by W.J.Parsons,Jr.,pp.951-969;Unit hydrographs,by R.H. Elliott and L.K.Sherman,pp.969-970;Accuracy of Oregon water supply forecasts,1936-1939,by R.A.Work and J.H.Ryan,pp.981-984;Measurement of foothill springs to determine soil moisture and ground water conditions in Snake basin,Idaho,by J.C.Marr,pp.1021-1027;Revised procedure for forecasting the spring runoff above Fort Peck,by D.B.Freeman,pp. 1027-1033.

Part IV.Regional meeting,Columbus,Ohio,December 1939.Symposium under auspices of the American association for the advancement of science. (A)Applications of mathematics in the earth-sciences.(B)Hydrologic problems in the Ohio and Michigan basins.Partial contents:The comprehensive flood-control plan for the Ohio river basin,by L.A.Pick,pp. 1133-1135;Hydrologic aspects of the Muskingum watershed conservancy district,by C.C.Chambers,pp.1136-1141;Land use and flood control,by W.F.Simpson and J.S.Cutler,pp.1141-1144.

Arena,Antonio and Guinazu,J.R. Eolian erosion of soils in central-west Argentina.Preliminary recognition of the effect of wind on the soils of the territory of La Pampa and its environs.(La erosion eolica de los suelos en el centro-oeste de la Argentina.Reconocimiento preliminar del effecto del viento sobre los suelos del territorio de la Pampa y zonas limitrofes) Argentina Min.de Agr.Div.Suelos.Pub.Misc.65. 71pp.,illus. Buenos Aires,1940. 9 P943 no.65

Arizona Colorado river commission. Arizona stream flow summary. v.p., processed,illus. Phoenix,Mar.1940. 292 Ar4

"This study was made July 1939 to March 1940.It is based on stream flow and diversion data gathered from many sources,but principally from the published Water-Supply Papers of the United States Geological Survey."

The study was made in seven parts as listed:1.Summary of stream flow of Colorado river upper basin in Arizona;2.Summary of inflow to Colorado river basin from Arizona between Lees Ferry and Boulder dam except that from Paria and Little Colorado basins;3.Little Colorado river basin stream flow summary;4.Little Colorado river basin in New Mexico stream flow summary;5.Williams river basin stream flow summary;6.Gila river basin stream flow summary;7.Gila river basin in New Mexico flow summary.

Canada.Dept.of agriculture. Report of the minister of agriculture for the Dominion of Canada for the year ended March 31,1940. 154pp. Ottawa,1940. 6 C16R

Soil drifting control experiments,pp.66-67.

Prairie farm rehabilitation act(5th year,1939/40.Water development; land utilization)pp.145-146.

Congrès international de géographie Amsterdam,1938. Comptes rendus... Tome deuxième.Travaux de la section III.Géographie coloniale. 615pp., illus. Leiden,E.J.Brill,1938. U.S.Geol.Survey Library

Partial contents: Soil management and density of population in the Netherlands Indies,by J.W.Gonggrijp,pp.397-404;The relationship between density of population and the method of land utilization in British India,by R.M.Gorrie,pp.405-416;On the relation between land utilization systems of farming and density of population in the southern United States,as a consequence of white colonization with the aid of unfree,coloured labour,by A.W.J.Den Hollander,pp.421-432; The relation between density of population and utilization of soil in Java,by G.Kuperus,pp.465-477;The relation between soil and population density in the Netherlands Indies,by E.C.Jul Mohr,pp.378-493; Destructive exploitation in modern colonial expansion,pp.494-499;Population density and soil utilisation in the Netherlands Indies,by W.B. Smits,pp.500-506;The relationship between the density of population and the method of land utilization in colonial regions,French Indo-China,pp.507-517.

Coyle,D.C. Our forests. 150pp. Washington,D.C.,National home library foundation[c1940] 99.61C83

A plea for the intelligent use of forests to help solve our land use, our flood control and related problems.

Included are chapters of farm woodlots and shelterbelts;watersheds; and grazing.

Davies,William. The grasslands of the Argentine and Patagonia. Imp. Bur.Pastures and Forage Crops.Bul.30. 46pp.,illus. Aberystwyth, Nov.1940. 64.8 Im7 no.30

"The tour of South America upon which this report is based was made during March and April 1938...[It deals]briefly with the zonation of pastoral and agricultural lands in the Argentine and Patagonia,and discusses in general the potential and immediate scope of development within each zone."

Godwin,George. The land our larder.The story of the Surfleet experiment and its significance in war. 127pp. London,The Acorn press, 1940. 56.6 G54 Ed.2

'A brief account of an agricultural experiment which has produced in one corner of England amazing results in the restoration of soil fertility and the production of abundant crops of the finest quality." It represents the results of the application of the theory of soil maintenance and fertility known as the Indore compost system.

Gries,Albin. Erosion control and landscaping(Synopsis of talk illustrated with natural color stereoptican views). Ill.Engin.Expt.Sta. Cir.41:72-75,illus. Urbana,Sept.17,1940. 290.9 Il62 no.41

Highway erosion control in Illinois.

Holmes,MacDonald and Haze,W.H. Rain run-off dispersion and soil conservation. Sydney Univ.Pubs.in Geogr.3. 31pp.,illus. Sydney, 1939. 331.9 Sy2 no.3

The writers state that the most approachable method of measuring

rainfall runoff in New South Wales 'combines practical demonstrations of control drainage for soil conservation on properties whose owners were willing to promote the work and to maintain the structures over a period of years with tests which can be said to measure intensity through its results.'

The papers listed represent experiments carried out for the purpose mentioned.

Part I.Controlled drainage preparatory to pasture replenishment at "Dalkeith" Cassilis,N.S.W;Part II.Rehabilitation experiment at "Macquarie Park",Wellington N.S.W;An experiment in the Tamworth district,New South Wales;Part IV.Two maps of rain storm frequency and seasonal distribution in N.S.Wales.

Idaho.Dept.of education. Irrigation in Idaho.A study planned by an eighth grade group in a two-room school. 16pp.,mimeogr. Boise [n.d.] Pam.Col.55Id

Institute de chimie et d'agriculture "Nicolaos Canellopoulos"(Anonymos ellenike etairia chemikon proionton kai lipasmaton) A national menace.Soil erosion destroying the fields of Hellas(Ethnikos kindynos...) 58pp.,illus. Piraeus,1938 56.7 An7

In Greek.

"This popular pamphlet,addressed to the farmers of Greece,is the first of a series of similar publications to be published by the Institute.The importance of soil erosion is pointed out in the introduction.This is followed by a discussion on the importance,methods and some of the important findings of the science of pedology.

"Thirty-three half-page photographs from different parts of Greece, showing typical examples of soil erosion,and methods of control,with complete explanations constitute the main body of the bulletin.

"An eight page discussion on recommended methods of soil erosion control is appended.Such methods include crop rotation,deep plowing, terracing,etc." --Summary.

Lander,P.E.and Mukherjee,B.K. The correlation between soil deficiencies,poor cultivation,unthrifty cattle and human malnutrition. India Dept.Agr.Proc.Mtg.Anim.Husbandry Wing Bd(1939):288-301. 1940. 49.9 In22 3d,1939

"A preliminary survey.Malnutrition is sometimes associated with high rainfall which brings about considerable leaching,of calcium especially;this is reflected in a deficiency of calcium in fodders, and in milk and other articles of human diet." Abs.Imp.Bur.Soil Sci.,Soils and Fert.3(5):213. 1940.

Massachusetts state planning board. Drainage basin studies. 2 nos., processed. Boston,1937-1940. 280.7 M38D

Contents: no.1.Blackstone river; no.7.Chicopee river.

Milne,G. A report on a journey to parts of the West Indies and the United States for the study of soils. 78pp. Dar Es Salaam,Printed at the government press,1940. 56.23 M63

This is a report of the author's journey to the West Indies and the United States,in 1938,to study soils as a result of a grant of funds by the Carnegie Corporation of New York.

Mitchell,L.S.,Bowman,Eleanor and Phelps,Mary. May country 'tis of thee.The use and abuse of natural resources. 335pp.,illus. New York,The Macmillan co.,1940. 279.12 M69

The collaborators of this book are former teachers and they produced it at the Bureau of Educational Experiments of the Writers Laboratory in New York.

Believing that emotional and factual appeal should both be used in the treatment of a subject of such national import,they have combined many sorts of material:historical sketches,verse,statistical summaries, photographs,charts and graphs,and diagrams simplifying the arguments. The book is designed for no one group of readers,but offers a number of different attacks on the subject of conservation.

There are three main sections - soil,coal and oil.

New England regional planning conference. Proceedings of the...conference...Boston,Massachusetts,May 10,1940. New England Reg.Planning Comm.Pub.62. 53pp.,processed. Boston,June 1940. 280.7 N44P

Community land use planning in New England,by Hugh Baker,pp.39-42.

New South Wales water conservation and irrigation commission. Report for the year ended 30th June 1939. 55pp. Sydney,1939. 55.9 N472

Resolutions carried at Interstate conference on water conservation and irrigation, Sydney, April 24-27,1939,pp.5-6;Water conservation works,pp.27-28.

North Carolina.Dept.of conservation and development.Div.of game and inland fisheries. Farming for wildlife. N.C.Dept.Conserv.and Devlpmt. Div.Game and Inland Fisheries.Wildlife Mangt.Ser.2. 15pp.,illus. [Raleigh?]Aug.1939. 412.9 N817 no.2

Simple methods by which farmers and sportsmen can improve wildlife habitats on agricultural lands.

Oakes,M.C. Geology and mineral resources of Washington county,Oklahoma. Okla.Geol.Survey.Bul.62. 208pp.,map. Norman,1940. 406 Ok4 no.62

Pennsylvania.Dept.of forests and waters. Natural water losses from Pennsylvania drainage basins.Prepared in cooperation with the United States Geological survey. John W.Mangan,district engineer. 73pp., illus.,processed. Harrisburg,1940. 292 P381

Includes precipitation,run-off,and water loss for Delaware,Susquehanna, Potomac and Ohio river basins.

Russell,E.J. A student's book on soils and manures. Ed.3,296pp.,illus. Cambridge,University press,1940. 56.7 R91 Ed.3

"Some useful books on soils and manures and their uses,"p.291.

"This edition has been completely revised and largely rewritten,so as to utilise as fully as possible the newer material and experience available since the last issue.I have had in mind the fact that many of the students using the book would afterwards proceed to work in the Empire overseas and so I have dealt with certain problems such as soil erosion which are more important elsewhere than at home" -- author's preface.

Smith,D.L. Shadows on the land. 10pp.,mimeogr. [Pullman,Wash., 1940?] Pam.Col.56.7 Sm

"Miss Smith wrote Shadows on the Land as creative portions of courses in her study for teaching.This formulation is illustrative of the writing that a teacher may well do in specific preparation for her work with students in organizing the results of their soil conservation study..."

Its purpose is "to present in a graphic form the necessity for soil conservation in the Northeast.This pageant is designed for use in the high school,and can easily be taken to Grange meetings,service clubs, etc."

Wallace,H.A. The American choice. 145pp. New York,Reynal & Hitchcock[c1940] 280.12 W152Am

"Recommended references."

In presenting to the American people a "candid picture of the situation they face at home and abroad and indicating the course which he feels they must take if the historic promise of American life is to be fulfilled"Mr.Wallace's argument falls into six parts:Peace through defense;People and resources;Soil defense;Farmers on guard;The road of our destiny;and The hard choice.

STATE EXPERIMENT STATION AND EXTENSION PUBLICATIONS

Hawaii

King,Norman. Strip crops. Hawaii Univ.Agr.Ext.Serv.Cir.94. 4pp., illus.,processed. [Honolulu]Aug.1940. 275.29 H312Ac no.94

Illinois

Mosher,M.L. The importance of beef cattle in soil conservation. Ill. Agr.Col.Ext.[Pub.]AE1417. 4pp.,processed. Urbana,May 1940. 275.29 I162P

Talk given before Beef Cattle Feeder's Day,April 26,1940,at the University of Illinois.

Indiana

Robertson,Lynn,Young,E.C.and Houk,H.J. Types of farming in Indiana. Ind.Agr.Expt.Sta.Bul.342. rev.ed.,52pp.,illus. Lafayette,July 1939. 100 In2P

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This report on factual data,confined principally to Gila river basin above the Coolidge dam with some reference to irrigated area below the dam,has been compiled by a technical committee composed of Thomas Maddock,Jr.,Frank Kimball,Charles K.Cooperrider,G.A.Hathaway and W.G. Hoyt.

It deals with relations among land-improvement practices and the quality and quantity of water in the Gila basin,Arizona and New Mexico, the analysis taking into account all present and prospective land-management practices as they relate in any way to the amount and distribution of flow of streams,accumulation of water underground,the chemical quality of water,the transportation and deposition of silt in streams and in reservoirs and the consumptive use of water by vegetation.

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